

**Figure 1**

Polynucleotide sequence of Human BMP2A gene (gi: 179501 and 4557368) (SEQ ID NO:1)  
(Coding sequence: 324 – 1514)

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5
    1 ggggacttct tgaacttgca gggagaataa cttgcgcacc ccactttgcg ccggtgcctt
    61 tgccccagcg gagcctgctt cgccatctcc gagccccacc gccctccac tcctcggcct
   121 tgcccgacac tgagacgctg ttcccagcgt gaaaagagag actgcgcggc cggcaccg
   181 gagaaggagg aggcaaagaa aaggaacgga cattcgggcc ttgcgccagg tcctttgacc
   241 agagtttttc catgtggacg ctctttcaat ggacgtgtcc ccgcgtgctt cttagacgga
   301 ctgcggtctc ctaaaggctc accatgggtg ccgggacccg ctgtcttcta gcgttgctgc
   361 ttccccaggt cctcctgggc ggcgcggctg gcctcgttcc ggagctgggc cgcaggaagt
   421 tcgcggcggc gtcgtcgggc cgccctcat ccagccctc tgacgaggtc ctgagcgagt
   481 tcgagttgcg gctgctcagc atgttcggcc tgaaacagag acccaccccc agcagggacg
   541 ccgtggtgcc cccctacatg ctagacctgt atcgcaggca ctcaggtcag ccgggctcac
   601 ccgccccaga ccaccggttg gagagggcag ccagccgagc caacactgtg cgcagcttcc
   661 accatgaaga atctttggaa gaactaccag aaacgagtgg gaaaacaacc cggagattct
   721 tctttaattt aagttctatc cccacggagg agtttatcac ctcagcagag cttcagggtt
   781 tccgagaaca gatgcaagat gctttaggaa acaatagcag tttccatcac cgaattaata
   841 tttatgaaat cataaaacct gcaacagcca actcgaaatt ccccgtgacc agacttttgg
   901 acaccaggtt ggtgaatcag aatgcaagca ggtgggaaag ttttgatgtc acccccgctg
   961 tgatgcggtg gactgcacag ggacacgcca accatggatt cgtggtggaa gtggcccact
  1021 tggaggagaa acaagggtgc tccaagagac atgttaggat aagcaggctt ttgcaccaag
  1081 atgaacacag ctggtcacag ataaggccat tgctagtaac ttttggccat gatggaaaag
  1141 ggcatcctct ccacaaaaga gaaaaacgtc aagccaaaca caaacagcgg aaacgcctta
  1201 agtccagctg taagagacac cctttgtacg tggacttcag tgacgtgggg tggaatgact
  1261 ggattgtggc tccccggggg tatcacgcct ttactgcca cggagaatgc ccttttcctc
  1321 tggctgatca tctgaactcc actaatcatg ccattgttca gacgttggtc aactctgtta
  1381 actctaagat tcctaaggca tgctgtgtcc cgacagaact cagtgtatc tcgatgctgt
  1441 accttgacga gaatgaaaag gttgtattaa agaactatca ggacatgggt gtggagggtt
  1501 gtgggtgtcg ctagtacagc aaaattaaat acataaatat atatata
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**Figure 2**

Polypeptide sequence of human BMP2A (SEQ ID NO:2 = translation of SEQ ID NO:1)

5           1    MVAGTRCLLA LLLPQVLLGG AAGLVPELGR RKFAAASSGR  
          41    PSSQPSDEVL SEFELRLLSM FGLKQRPTPS RDAVVPPYML  
          81    DLYRRHSGQP GSPAPDHRLE RAASRANTVR SFHHEESLEE  
          121   LPETSGKTTR RFFFNLSIP TEEFITSDEL QVFREQMQDA  
          161   LGNSSSFHHR INIYEIIKPA TANSKEFPVTR LLDTRLVNQN  
10       201   ASRWESFDVT PAVMRWTAQG HANHGFVVEV AHLEEKQGV  
          241   KRHVRISRSL HQDEHSWSQI RPLLVTFGHD GKGHPLHKRE  
          281   KRQAKHKQRK RLKSSCKRHP LYVDFSDVGW NDWIVAPPGY  
          321   HAFYCHGECF FPLADHLNST NHAIVQTLVN SVNSKIPKAC  
          361   CVPTELSAIS MLYLDENEKV VLKNYQDMVV EGCGCR

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**Figure 3**  
Results of a loss of function validation experiment

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